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10/563,917	01/10/2006	Neil Barton	021500-145	5444

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EXAMINER	
ROBINSON, LAUREN E	

ART UNIT	PAPER NUMBER
1794	

NOTIFICATION DATE	DELIVERY MODE
08/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/563,917	BARTON ET AL.	
	Examiner	Art Unit	
	LAUREN ROBINSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11,35-37,39-65 and 68-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,35-37,39-65 and 68-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 12 2009 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11, 37, 41-42, 44, 46-50, and 68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 11 is rejected for lack of written description and new matter because there is no teaching in the original disclosure specifically reciting a total iron range with the necessary end points of 0.8 to 4.0%. Claims 37, 41-42, 44, 46-50 and 68 are rejected for being dependent thereon,

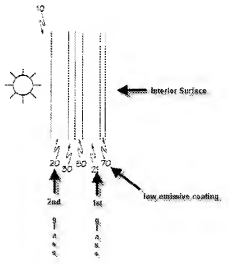
Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 35-36, 39-40 , 52-60, 63-64 and 69-70 are rejected under 35 U.S.C. 103(a) as being obvious over Byker et al. (US PN. 6,446,402).

Regarding claim 35: Byker et al. teach a laminated glazing (abstract, Figures) for use in vehicles. The laminated glazing is provided below.



Numerals 20 and 21 correspond to second and first substrate plies (Col. 24, lines 24-35) which can be glass (Col. 14, lines 10-20, Col. 15, lines 30-45). As illustrated, these plies both have oppositely facing first and the reference teaches that the plies can be body-tinted (Col. 15, lines 54-60 and Col. 18, lines 43-65). Also, layer 30 is a barrier layer and layer 50 is a thermochromic layer (Col. 24, lines 24-35), however, the reference teaches that the barrier layer is optional (Col. 2, lines 65-67-Col. 3, lines 1-20)

and that the thermochromic layer can be in the form of a plastic polyvinyl interlayer with thermochromic material dispersed therein (Col. 11, lines 10-44, Col. 12, lines 50-67-Col. 13, lines 1-67, Col. 15, lines 35-45). From what is taught above, it is seen that two glass substrates have a plastic interlayer there between wherein the interlayer contacts a surface of the first glass 21, which corresponds to a first surface of the first glass. Also, the applicants' only claim "contact" and not direct contact and from this, the above thermo interlayer contacting a surface of the second glass 20, via a barrier layer, corresponding to a first surface of the second glass, the claim is met. However, regardless, since the reference teaches that the barrier layer is optional, and as such, the reference also allows for direct contact of such a surface.

Additionally, the reference teaches that the above plastic interlayer can also be body-tinted (Col. 14, lines 54-60, Col. 15, lines 30-45, and Col. 18, lines 43-65) Further, as illustrated, a low emissivity film 70 is on the interior surface of the overall laminated glazing (Figure 1c, Col. 24, lines 24-35) by overlying the second surface of the first glass 21 and the second surface of the second glass 20 is exposed to sunlight **(Claim 35)**.

Regarding claim 36: Byker et al. also teach that instead of the glass plies being tinted, they can both be clear glass (Col. 14, lines 51-58) **(Claim 36)**.

Regarding claims 39-40 and 52: Further, the interlayer, which can be tinted, is taught to have a thickness of 0.001 to 0.1cm (0.01mm to 1mm) which overlaps applicants' claimed 0.76mm thickness. Also, Byker teaches that such an interlayer can absorb from a few percent to 50% or more of visible and/or infrared (energy) transmission (Col. 18,

lines 58-67- Col. 19, lines 1-5). While the reference merely includes that a few percent to 50% or more of the visible light transmission and/or a few percent to 50% or more of the energy transmission is absorbed, the examiner notes that one of ordinary skill in the art would recognize that the percentage of each radiation not absorbed is the percentage transmitted. Therefore, this provides for the interlayer with the above overlapping thickness to have a majority to 50% or less visible light transmission and/or a majority to 50% or less energy transmission which overlaps applicants' claimed ranges thereby, providing a prima facie case of obviousness. See MPEP 2144.05. In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976) **(Claims 39-40 and 52)**.

Regarding claims 53-54,: The interlayer can also include materials that absorb near infrared radiation (Col. 18, lines 43-67 and Col. 19, lines 1-5) **(Claims 53-54)**.

Regarding claims 55-56: Byker also teaches that the glass plies can each have a thickness of from 20 micron to 8 cm (0.02mm to 80mm) (Col. 15, lines 45-50), and the thermochromic plastic interlayer can have a thickness of 0.001 to 0.1cm (0.01mm to 1mm) (Col. 14, lines 1-10). However, *they do not disclose the low e coating thickness to determine the total overall glazing thickness although this would be obvious.*

For instance, the examiner notes that it is known in the art that thickness of an overall glazing is affected by the thickness of layers within and said layer thickness is a result effective. For example, adjusting thickness of each layer therein, the optical and/or physical properties of the overall glazing will change such as level of transmission, strength, etc.. Therefore, through routine experimentation of optimizing individual layer thicknesses, one can obtain desired results and the examiner notes that

through routine experimentation, any total thickness will be obtained including applicants. As such, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Byker et. al. to include that the thickness of each layer (interlayer, low e, substrate, etc.) can be optimized to any value, including values that provide totals within applicants' range, in order to obtain any desired optical and/or physical results **(Claims 55-56)**.

Regarding claims 57-60: As discussed, Byker discloses that the interlayer can absorb from a few percent to 50% or more of visible and/or infrared (energy) transmission (Col. 18, lines 58-67- Col. 19, lines 1-5) which provides transmission values that overlap applicants'. The examiner notes that if a layer within a laminate has a certain value for the above % transmission parameters for energy and/or visible, then it would be recognized that overall laminate would have the same values or less than that of one layer therein as the radiation must first go through the layer within before exiting said glazing. Therefore, the reference allows for the glazing to have a majority to 50% or less visible light transmission and/or a majority to 50% or less energy transmission which overlaps the applicants' claimed ranges and therefore, providing a prima facie case of obviousness. See In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976) **(Claims 57-60)**.

Regarding claims 63-64: As the above teaching is disclosed and the reference teaches as discussed, that the two glass plies can be either tinted or clear and the glazing can be used for a vehicle, the reference *does not specifically disclose a specific*

embodiment wherein the outer ply is tinted using an inner ply carrying the low E coating therein being clear.

While the above limitation is not discussed, the examiner notes that the reference teaches in one example that the laminate has a tinted glass substrate facing the outside of the glazing (sun exposure) and the inner ply is the glass with the low E coating (conceptual example 2). Although, the low E glass is not specifically included as being clear and the reference desires to have a tinted glass closest to the outside in order to absorb UV energy, it is the examiner's position that it would be recognized in the art that having the ply closest to an individual within a vehicle, for example, being clear would be advantageous since it would allow for enough visible light to pass through. For example, it would be recognized that if both plies were colored, then the glazing would be even darker than if only one was tinted and this would affect the level of visibility of one to see out and since it is known that having enough visibility to see out of a vehicle is desired in the art, then one would recognize that if the outer ply is tinted while making the inner ply clear would provide for the level of darkness to be controlled so that one can have better visibility out the window, while the window is still able to absorb UV light traveling in the window.

As such, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Byker et al. to include that while the outer ply can be tinted, it would be advantageous to make the inner ply clear as it would aid in the control of the glazing darkness such as allowing one sitting inside the vehicle to have enough visibility

to see out while still having enough tint on the outer side of the glazing to absorb UV radiation from the sun coming into the vehicle **(Claim 63-64)**.

Regarding claims 69 and 70: Also, as illustrated above, the low emissivity coating 70 is contacting the above mentioned second surface of the first glass 21 **(Claims 69 and 70)**.

2. Claims 61-62 are rejected under 35 U.S.C. 103(a) as being obvious over Byker et al. (US PN. 6,446,402) as applied to claims 35 and 36, in view of Baudin et al. (US PN. 4,910,088) .

As discussed, Byker et al. teach the glazing laminates of claims 35 and 36 However, the reference *does not teach that the laminated glazing that can be used as a vehicle glazing can be used as a windscreen.*

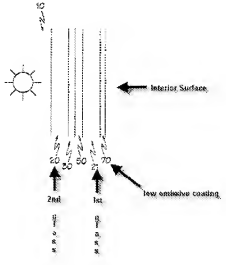
Baudin et al. teach vehicle windows (title) such as a glazing vehicle window which can be in laminate form. They teach that laminates such as these wherein the laminate is comprised of two glass sheets laminated together wherein one sheet has an outer low e coating therein, has the capability to retain broken fragments of glass if glass therein ever breaks and therefore, provides safety which is advantageous for use in vehicle windscreens (Col. 4, lines 35-53).

Byker et al. and Baudin et al. are related due to both teaching window glazings used in vehicles wherein two glass plies are laminated together with a low e coating on the outer surface of one ply. As Baudin illustrates that such a laminate is desirably used as windscreens, such a use would have been obvious to one having ordinary skill. Therefore, it would have been obvious to one having ordinary skill in the art at the time

of invention to modify Byker to include that the laminate can be made into a windscreen to retain broken fragments of glass, provide safety, etc. in a vehicle **(Claims 61-62)**.

3. Claims 11, 37, 41-46, 48, 50-51, 65 and 68 are rejected under 35 U.S.C. 103(a) as being obvious over Byker et al. (US PN 6,446,402) as applied to claim 35, in view of Higby et al. (US Pub. 2002/0025899).

Regarding claims 11 and 51: As discussed, Byker et al. teach a laminated glazing (abstract, Figures) for vehicles. The laminated glazing is provided below.



Numerals 20 and 21 correspond to second and first substrate plies (Col. 24, lines 24-35) which can be glass (Col. 14, lines 10-20, Col. 15, lines 30-45). As illustrated, these plies both have oppositely facing first and the reference teaches that the plies can be body-tinted (Col. 15, lines 54-60 and Col. 18, lines 43-65). Also, layer 30 is a barrier layer and layer 50 is a thermochromic layer (Col. 24, lines 24-35), however, the reference teaches that the barrier layer is optional (Col. 2, lines 65-67-Col. 3, lines 1-20) and that the thermochromic layer can be in the form of a plastic polyvinyl interlayer, which can be body-tinted, with thermochromic material dispersed therein (Col. 11, lines

10-44, Col. 12, lines 50-67-Col. 13, lines 1-67, Col. 15, lines 35-45). From what is taught above, it is seen that two glass substrates have a plastic interlayer there between wherein the interlayer contacts a surface of the first glass 21, which corresponds to a first surface of the first glass. Also, the applicants' only claim "contact" and not direct contact and from this, the above thermo interlayer contacting a surface of the second glass 20, via a barrier layer, corresponding to a first surface of the second glass, the claim is met. However, regardless, since the reference teaches that the barrier layer is optional, and as such, the reference also allows for direct contact of such a surface.

Additionally, the examiner notes that according to paragraph 0037 within the applicants' publication, a polyvinyl interlayer corresponds to "transparent plastic" and further, as the reference teaches the glazing to have visible transmission, one would expect all materials therein to have some degree of transparency. As such, the above interlayer meets applicants' claimed "transparent" limitation of claim 11.

Further, as illustrated, a low emissivity film 70 is on the interior surface of the overall laminated glazing (Figure 1c, Col. 24, lines 24-35) by overlying the second surface of the first glass 21 and the second surface of the second glass 20 is exposed to sunlight. However, the reference does not specifically disclose the composition of the body-tinted glass as well as the visible and energy transmission at the claimed thickness although these features would have been obvious.

Consider the body-tint composition

Higby et al. teach UV absorbing glass of neutral tint that provides improvement and solves transmission problems over known prior art glasses related to obtaining low

solar transmission while remaining high in visible transmission (abstract, 0005-0007). The tinted glasses can be used for glazings for vehicles (0002) and are comprised of 0.3 to about 0.7% total iron calculated as Fe2O3 (0018), wherein 21% of said total is ferrous (FeO) (0010, 0018) (ie: around 0.15% by weight of glass being of FeO). The examiner notes that the reference teaching "about 0.7%" allows for values slightly above and therefore, overlap applicants' providing a prima facie case of obviousness. See MPEP 2144.05.

Byker et al. and Higby et al. disclose analogous inventions related to tinted glass glazing used in vehicles wherein high visible transmission and low solar transmission is desired. From this, one having ordinary skill in the art at the time of invention would have found it obvious to use the tinted body glass composition of Higby et al. as the tinted glass body compositions (first and second plies) of Byker in order to provide for the desired results of lowering solar transmission while maintaining the high visible transmission desired therein.

Consider the glass having the claimed visible and energy properties when the glass is at a thickness of 2.1mm.

While the above limitation is not disclosed, the examiner notes that the claim merely recites that "when" the glass is at the above thickness, it obtains the properties. From this, the prior art does not have to teach the limitations but rather, only be capable of providing such properties when subjected to the same conditions. As Byker's modified glass includes applicants' claimed tinted body composition, one having ordinary skill would reasonably expect both to have the same properties (claimed optical

transmission) when subjected to the same conditions (claimed thickness). Therefore, the claimed features are not considered to distinguish over the prior art **(Claims 11 and 51)**.

Regarding claims 37 and 65: As mentioned, Byker discloses that both glass substrates can be tinted and Byker was modified to include the tinted composition of Higby et al. which meets applicants' claim. Further, it was discussed that such a composition would be expected to have the same properties when subjected to the same conditions as applicants'. Therefore, applicants' claim 37 is not considered to distinguish over the prior art **(Claims 37 and 65)**.

Regarding claim 41.: The interlayer can include materials that absorb near infrared radiation (Col. 18, lines 43-67 and Col. 19, lines 1-5) **(Claim 41)**.

Regarding claims 42-43: As mentioned, Byker also teaches that the glass plies can each have a thickness of from 20 micron to 8 cm (0.02mm to 80mm) (Col. 15, lines 45-50), and the thermochromic plastic interlayer can have a thickness of 0.001 to 0.1cm (0.01mm to 1mm) (Col. 14, lines 1-10). However, *they do not disclose the low e coating thickness to determine the total overall glazing thickness although this would be obvious.*

For instance, the examiner notes that it is known in the art that thickness of an overall glazing is affected by the thickness of layers within and said layer thickness is a result effective. For example, adjusting thickness of each layer therein, the optical and/or physical properties of the overall glazing will change such as level of transmission, strength, etc.. Therefore, through routine experimentation of optimizing

individual layer thicknesses, one can obtain desired results and the examiner notes that through routine experimentation, any total thickness will be obtained including applicants. As such, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Byker et. al. to include that the thickness of each layer (interlayer, low e, substrate, etc.) can be optimized to any value, including values that provide totals within applicants' range, in order to obtain any desired optical and/or physical results **(Claims 42-43)**.

Regarding claims 44-46: As discussed, Byker discloses that the interlayer can absorb from a few percent to 50% or more of visible and/or infrared (energy) transmission (Col. 18, lines 58-67- Col. 19, lines 1-5) which provides transmission values that overlap applicants'. The examiner notes that if a layer within a laminate has a certain value for the above % transmission parameters for energy and/or visible, then it would be recognized that overall laminate would have the same values or less than that of one layer therein as the radiation must first go through the layer within before exiting said glazing. Therefore, the reference allows for the glazing to have a majority to 50% or less visible light transmission and/or a majority to 50% or less energy transmission which overlaps the applicants' claimed ranges and therefore, providing a prima facie case of obviousness. See In re Wertheim, 541 F.2d 257, 191USPQ 90 (CCPA 1976) **(Claims 44-46)**.

Regarding claim 48: As the above teaching is disclosed and the reference teaches as discussed, that the two glass plies can be either tinted or clear and the glazing can be used for a vehicle, the reference *does not specifically disclose a specific embodiment*

wherein the outer ply is tinted using an inner ply carrying the low E coating therein being clear.

While the above limitation is not discussed, the examiner notes that the reference teaches in one example that the laminate has a tinted glass substrate facing the outside of the glazing (sun exposure) and the inner ply is the glass with the low E coating (conceptual example 2). Although, the low E glass is not specifically included as being clear and the reference desires to have a tinted glass closest to the outside in order to absorb UV energy, it is the examiner's position that it would be recognized in the art that having the ply closest to an individual within a vehicle, for example, being clear would be advantageous since it would allow for enough visible light to pass through. For example, it would be recognized that if both plies were colored, then the glazing would be even darker than if only one was tinted and this would affect the level of visibility of one to see out and since it is known that having enough visibility to see out of a vehicle is desired in the art, then one would recognize that if the outer ply is tinted while making the inner ply clear would provide for the level of darkness to be controlled so that one can have better visibility out the window, while the window is still able to absorb UV light traveling in the window.

As such, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Byker et al. to include that while the outer ply can be tinted, it would be advantageous to make the inner ply clear as it would aid in the control of the glazing darkness such as allowing one sitting inside the vehicle to have enough visibility

to see out while still having enough tint on the outer side of the glazing to absorb UV radiation from the sun coming into the vehicle **(Claim 48)**.

Regarding claim 50: Further, as discussed, the overall glazing can be made to have a energy transmission of less than or equal to 50% due to the amount of energy absorption provided by the interlayer and the glazing will also have a visible transmission of 50% or less due to the same interlayer. However, the reference *does not specifically disclose that the glazing has a visible transmission of at least 15% and a total solar energy transmission not greater than 15% greater than its light transmission*.

Although the above limitation is not disclosed, the examiner notes that as discussed, the reference desires to have solar energy (heat) absorption which is provided by the tinted materials and the examiner notes that the reference teaches that the tint that provides the UV absorption also absorbs visible radiation (Col. 18, lines 60-67-Col. 19, lines 1-65). Also, it was discussed that it would be recognized that while it is advantageous to have UV absorption, and therefore limit the amount of heat radiated into a vehicle, one would realize that the visible transmission would be affected and one would recognize that since visible transmission for one to see out of a glazing is beneficial, then attempts would be made to try to obtain high heat transmission but allow for just enough visible transmission desired by one with ordinary skill.

Furthermore, the examiner notes that while it would be recognized to adjust the heat transmission and visible transmission for the above purpose, one would know that these optical properties are result effective variables as they can be changed by the thickness and UV absorbing material composition of each layer within and through

routine experimentation, desired optical properties can be obtained. As such, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Byker et al. to include that while UV absorption is desired in the reference, one would desire to have enough visible transmission therein and they could adjust the ratio to any value by optimizing the composition of UV absorbing material and thickness of layers within to any values, which will produce any desired ratio of visible to heat transmission including the applicants' values, in order to obtain enough UV absorption for the purpose of the glazing while maintaining enough visible transmission for one to see out **(Claim 50)**.

Regarding claim 68: Also, as illustrated above, the low emissivity coating 70 is contacting the above mentioned second surface of the first glass 21 **(Claim 68)**.

4. Claims 47 and 49 are rejected under 35 U.S.C. 103(a) as being obvious over Byker et al. (US PN. 6,446,402) and Higby et al. (US Pub. 2002/0025899) as applied to claims 11 and 48, in view of Baudin et al. (US PN. 4,910,088) .

As discussed, Byker et al. teach the glazing laminates of claims 11 and 48. However, the reference *does not teach that the laminated glazing that can be used as a vehicle glazing can be used as a windscreen or that the low E coating is a pyrolytic coating.*

Baudin et al. teach vehicle windows (title) such as a glazing vehicle window which can be in laminate form. They teach that laminates such as these wherein the laminate is comprised of two glass sheets laminated together wherein one sheet has an outer coating therein, has the capability to retain broken fragments of glass if glass

therein ever breaks and therefore, provides safety which is advantageous for use in vehicle windscreens (Col. 4, lines 35-53). Also, Baudin et al. teach that the coating on the external side of one of the above sheets is a low emissivity coating (abstract) and that the low E coating should be a pyrolytic coating due to these types of coatings providing for low diffuse light transmission (Col. 4, lines 59-64).

Byker et al. and Baudin et al. are related due to both teaching window glazings used in vehicles. Also, both teach that the glazing is a laminated of two glass plies laminated together with a low E coating on one sheet. Although the low E coating is different, one of ordinary skill in the art would recognize from Baudin et al. that a laminate with the structure of Byker et al. would be able to function in the same safety manner as above and therefore, it would be obvious to at least try the glazing for the applications of a windscreen and that since Baudin et al. teaches that low E coatings in general, not limited to tin oxide, should be pyrolytic as it provides for low light diffusion, one would recognize that it would be at least obvious to try to make it pyrolytic as low light diffusion is advantageous for low E coatings as known in the art. As such, it is the examiner's position that it would have been obvious to one of ordinary skill in the art at the time of invention to try and modify Byker et al. to include that the laminate glazing can be used as a windscreen in order to provide a windscreen structure with safety characteristics and that the low E coating can be made pyrolytic in order to obtain low light diffusion on the surface of the glass sheet within the laminate **(Claims 47 and 49)**.

Response to Arguments

Applicant's arguments filed June 2, 2009 have been fully considered but they are not persuasive.

Argument 1: Applicants argue that the barrier layer 30 within Byker is the plastic interlayer and as illustrated by Fig. 1c, it only contacts a surface of one of the glass substrates and then contacts a thermochromatic layer 50. Therefore, it does not contact a first surface of the first glass substrate and a first surface of the second glass substrate (see pg 10 of remarks)

First, this is not persuasive because the interlayer on which the examiner relied upon was not the above argued barrier layer, but actually, it was the thermochromatic layer 50 which in the illustration contacts one glass surface and the argued barrier layer. Secondly, the reference teaches that the barrier layer is optional and not required which was discussed in the action above and as such, this allows for an explicit teaching that the thermochromatic plastic interlayer will contact the surface of both glass plies. Regardless however, the examiner points out that the claims only recites "contact" and not "direct contact" which is known to allow for situations such as being in contact via another material (having another material in between).

Argument 2: Applicants argue that the thermochromatic layer 50 is essential in Byker and it would not be obvious to remove from 1c. (see pg 10 of remarks).

This argument is not persuasive because it was not mentioned within the action above or previous action that it would be obvious to remove the thermochromatic layer 50 because this layer was the one examiner relied upon to be present and correspond to the interlayer.

Argument 3: Applicants argue that Byker discloses that the glass substrate may be made of a combination of glass and plastic materials and that glass substrate 21 will not be exposed due to glass-plastic-glass configuration. Rather, one surface would contact the plastic and the other would contact either the thermochromatic layer 50 or low e layer 70. (pg 11 of remarks)

This argument is not persuasive. First, the examiner points out that it appears the applicants are attempting to argue that the glass substrate 21 was the substrate relied upon as the second substrate which has the exposed surface and this is incorrect. Rather, substrate 20 was used as the second substrate with the exposed surface. Additionally, applicants arguing that the glass substrates are actually a combination of glass and plastic with the glass-plastic-glass configuration and therefore, one surface of the glass will not being exposed because it will contact plastic is not persuasive. This is due to Byker specifically disclosing that the substrates are "plastic, glass, OR combinations thereof" (col. 14, lines 1-15) and while the examiner agrees that the reference does teach combinations, the reference does teach the substrates being solely glass. As such, a surface of a glass ply 20 will be exposed on the side facing the illustrated sun in Fig 1c.

Argument 4: Applicants argue tat even though the office action takes the position that Byker's thermochromatic layer 50 is the interlayer, the layer merely contacts a surface of one glass 21 and not a surface of the other glass. (Pg. 11 of remarks).

This is not persuasive because as discussed, the claim does not recite "direct contact" and therefore, having materials in between is allowed. Secondly, it was

discussed that the barrier layer is optional and as such, Byker does allow for the thermochomatic layer to contact a first surface of the first glass (21) and a first surface of the second glass (20).

Argument 5: Applicants argue that Byker fails to disclose their claimed glass tinted body composition and therefore, does not anticipate claim 11. Additionally, they argue that although such a composition was found obvious over Higby, claim 11 as amended includes a total iron content of 0.8 to 4.0 percent which is outside of Higby's range of 0.3 to 0.7% and does not render obviousness (pg. 12 of remarks).

The above argument regarding claim 11 not being anticipated by Byker is not persuasive and that it why claim 11 was rejected in the action above for being obvious over Byker in view of Higby. Also, while applicants argue that claim 11 as amended includes a total iron content outside applicants' range and therefore, does not render obvious, this is not persuasive because Higby specifically teaches in their paragraph 0018 that their range is 0.3 to "about" 0.7 and as discussed in the above action, this allows for values slightly above 0.7 which would include and overlap applicants' 0.8. As such, the composition would be obvious.

Argument 6: Applicants argue that the visible (at least 70%) and solar transmission (58%) within Higby is of a substrate which is 4mm thick and would not provide such transmissions when reduced to 2.1 as less absorbing material will be present. Therefore, by reducing the thickness, the light and solar transmissions would increase beyond the claimed 88% visible and 72% solar (pg. 12 and 13 of remarks).

While the examiner agrees that reducing the thickness of the above material will reduce absorbance and thereby increase transmission, the argument regarding that the applicants' claimed optical properties would be exceeded when a glass composition of Higby has its thickness made to 2.1 is not persuasive. First, this is due to the fact that while it is true that reducing thickness increases transmission, applicants' have not provided any clear evidence, data, etc. that shows that specifically the 4mm thick material of Higby, which is now in Byker, which has a visible transmission of 70% and solar of 58% will necessarily have over 88% visible transmission and 72% solar when reduced to 2.1mm.

For example, it would be reasonably expected that reducing such 4mm thick glass having 70% visible and 58% solar transmission to 2.1mm could have their transmission increased and produce anywhere from 71 to 88% visible and 59 to 72% solar transmission which is what applicants' claim absent an object showing to the contrary. Therefore, as the material is the same as applicants' claim, absent an objective showing, it would be expected that the glass material of Higby, now within Byker would produce applicants' same properties when subjected to the same conditions of being 2.1mm thick.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAUREN ROBINSON whose telephone number is (571)270-3474. The examiner can normally be reached on Monday to Thursday 6am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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